INCIDENT: OTCW Oil to Lake Michigan

Submerged oil survey plan – Version 3, 27-03-2014

Objectives

- Determine the presence or absence of submerged oil in spill area (cove).

Strategy:

- The presence (or absence) of submerged oil would be determined using two teams: one working from the shoreline using waders and one working offshore from a boat.
- Each team would have representatives from EPA, USCG and BP.
- Presence (or absence) of oil would be determined by dropping absorbents attached to a rake or to a chain at the bottom of the lake. The team would evaluate presence/absence of oil once absorbents are brought back to the surface.

Methodology:

- Team members will ensure that absorbents are in contact with surface sediments at the bottom of the lake for at least 30 sec. Chain or rake will be brought to surface immediately after for evaluation of presence (or absence) of oil by team members.
- Information collected by the team for each sampling point will be the following:
    - Coordinates (using GPS)
    - Water depth
    - Sediment type
    - Temperature
- Team members will evaluate the presence of oil visually. The following will be considered an indication of the presence of oil at the survey point:
    - Dark stains or cover on absorbent
    - One team member will use viewing tube/underwater camera to confirm contact of rake/chain with lakebed. Sediment type will be recorded based on this observation;
    - Appearance of sheen, oil droplets or tar balls on the water surface as sediments are disturbed
- In the event that absorbents become oiled (confirming the presence of submerged oil), oiled absorbents will be placed in a bag and introduced into a chain of custody for fingerprinting analysis.
- In the event that sheen, oil droplets or tar balls are observed on the water surface, the location of the survey point will be specifically recorded. The Environmental Unit leader will be informed of the situation for further instructions.

Survey grid:

- 21 locations will be surveyed in order to provide a 95% confidence level (as per calculations from US EPA).
- Survey points will be located approximately every 50m along 7 transects 100m apart.
- Team members can also decide to sample additional locations according to field observations such as a change of coloration in sediments, change in sediment type, etc.